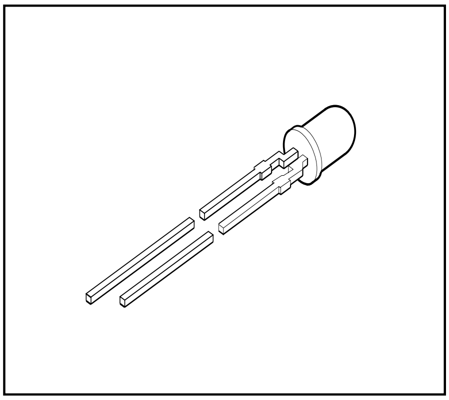
SIEMENS

Hyper 3 mm (T1) LED, Diffused Hyper-Bright LED

LS 3366, LA 3366, LO 3366 LY 3366

Besondere Merkmale

- eingefärbtes, diffuses Gehäuse
- zur Einkopplung in Lichtleiter
- als optischer Indikator einsetzbar
- Lötspieße mit Aufsetzebene
- gegurtet lieferbar
- Störimpulsfest nach DIN 40839



Features

- colored, diffused package
- optical coupling into light pipes
- for use as optical indicator
- solder leads with stand-off
- available taped on reel
- load dump resistant acc. to DIN 40839

Typ Type	Emissionsfarbe Color of Emission	Gehäusefarbe Color of Package	Lichtstärke Luminous Intensity I_F = 20 mA I_V (mcd)	Bestellnummer Ordering Code
LS 3366-NR	super-red	red diffused	25 ... 200	Q62703-Q3457
LS 3366-P			40 ... 80	Q62703-Q3458
LS 3366-Q			63 ... 125	Q62703-Q3459
LS 3366-R			100 ... 200	Q62703-Q3460
LS 3366-PS			40 ... 320	Q62703-Q3461
LA 3366-PS	amber	orange diffused	40 ... 320	Q62703-Q3881
LA 3366-Q			63 ... 125	Q62703-Q3882
LA 3366-R			100 ... 200	Q62703-Q3883
LA 3366-S			160 ... 320	Q62703-Q3884
LA 3366-QT			63 ... 500	Q62703-Q3885
LO 3366-PS	orange	orange diffused	40 ... 320	Q62703-Q3127
LO 3366-Q			63 ... 125	Q62703-Q3172
LO 3366-R			100 ... 200	Q62703-Q3173
LO 3366-S			160 ... 320	Q62703-Q3174
LO 3366-QT			63 ... 500	Q62703-Q3175
LY 3366-PS	yellow	yellow diffused	40 ... 320	Q62703-Q3462
LY 3366-Q			63 ... 125	Q62703-Q3464
LY 3366-R			100 ... 200	Q62703-Q3465
LY 3366-S			160 ... 320	Q62703-Q3463
LY 3366-QT			63 ... 500	Q62703-Q3466

Streuung der Lichtstärke in einer Verpackungseinheit $I_{V\,max} / I_{V\,min} \leq 2.0$.
Luminous intensity ratio in one packaging unit $I_{V\,max} / I_{V\,min} \leq 2.0$.

Grenzwerte
Maximum Ratings

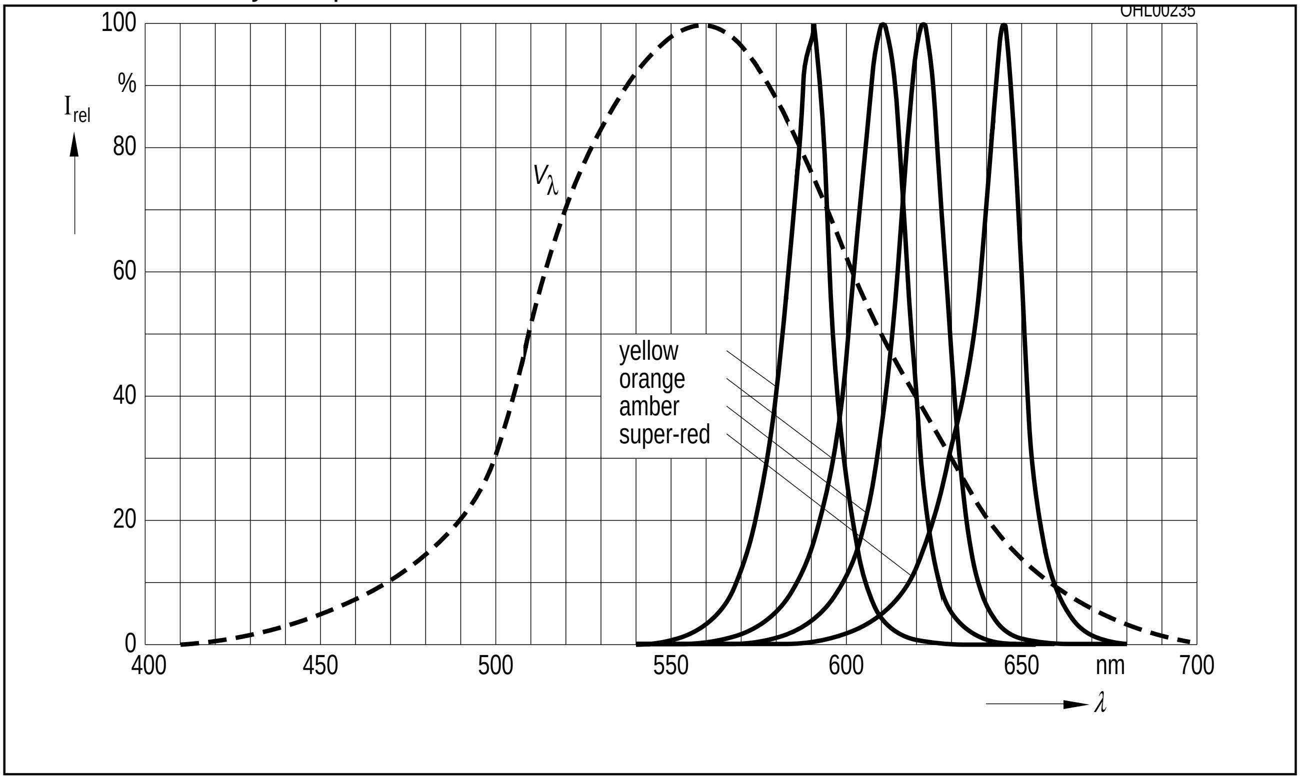
Bezeichnung Parameter	Symbol Symbol	Werte Values		Einheit Unit
		LS, LO, LA	LY	
Betriebstemperatur Operating temperature range	T_{op}	– 55... + 100		˚C
Lagertemperatur Storage temperature range	T_{stg}	– 55... + 100		˚C
Sperrschichttemperatur Junction temperature	T_j	+ 100		˚C
Durchlaßstrom Forward current	I_F	30	20	mA
Stoßstrom Surge current $t \leq 10$ µs, $D = 0.005$	I_{FM}	1	0.2	A
Sperrspanung[1)] Reverse voltage[1)]	V_R	3		V
Verlustleistung Power dissipation $T_A \leq 25$ ˚C	P_{tot}	80	55	mW
Wärmewiderstand Thermal resistance Sperrschicht / Umgebung Junction / air	$R_{th\ JA}$	500		K/W

1) Belastung in Sperrichtung sollte vermieden werden.
1) Reverse biasing should be avoided.

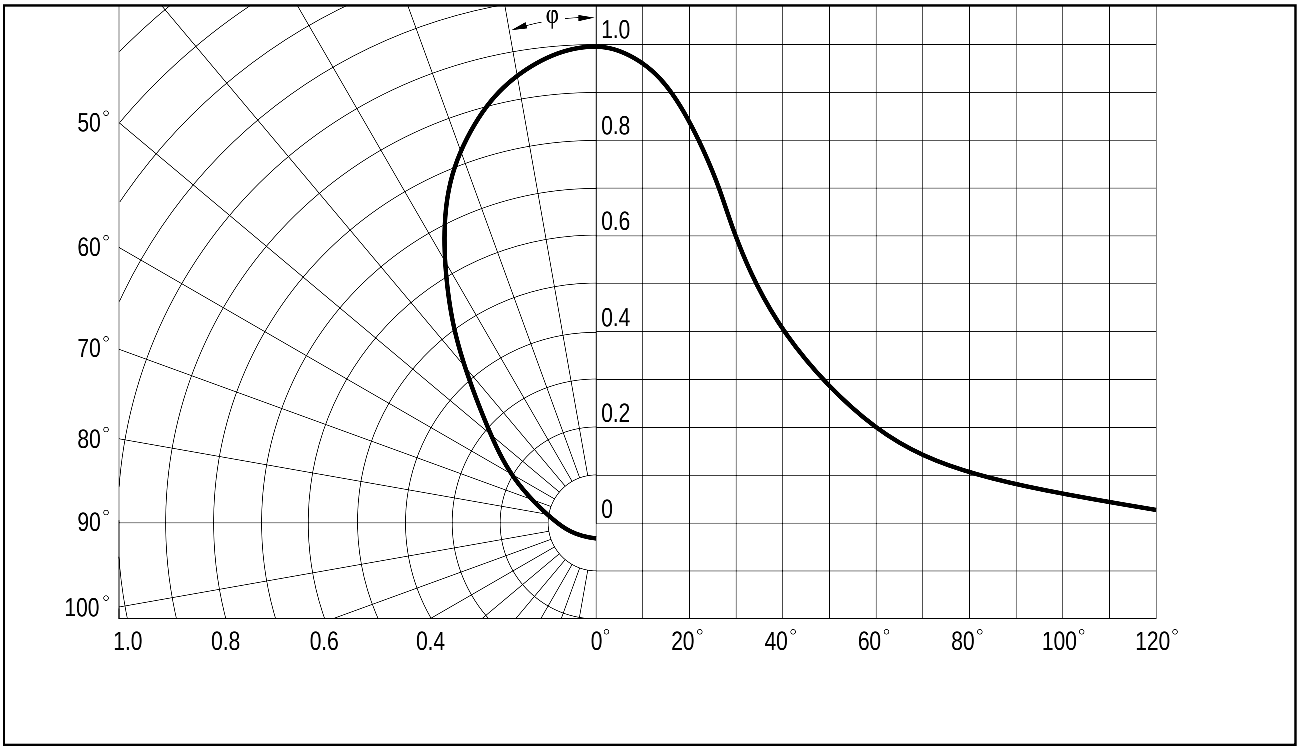
Kennwerte (T_A = 25 °C)
Characteristics

Bezeichnung **Parameter**		**Symbol** **Symbol**	**Werte** **Values**				**Einheit** **Unit**
			LS	**LA**	**LO**	**LY**	
Wellenlänge des emittierten Lichtes Wavelength at peak emission I_F = 20 mA	(typ.) (typ.)	λ_{peak}	645	622	610	591	nm
Dominantwellenlänge Dominant wavelength I_F = 20 mA	(typ.) (typ.)	λ_{dom}	632	615	605	587	nm
Spektrale Bandbreite bei 50% $I_{rel\ max}$ Spectral bandwidth at 50% $I_{rel\ max}$ I_F = 20 mA	(typ.) (typ.)	$\Delta\lambda$	16	16	16	15	nm
Abstrahlwinkel bei 50% I_v (Vollwinkel) Viewing angle at 50% I_v		2φ	70	70	70	70	Grad deg.
Durchlaßspannung Forward voltage I_F = 20 mA	(typ.) (max.)	V_F V_F	2.0 2.6	2.0 2.6	2.0 2.6	2.0 2.6	V V
Sperrstrom Reverse current V_R = 3 V	(typ.) (max.)	I_R I_R	0.01 10	0.01 10	0.01 10	0.01 10	µA µA
Temperaturkoeffizient von λ_{dom} (I_F = 20 mA) Temperature coefficient of λ_{dom} (I_F = 20 mA)		TC_{λ}	0.014	0.062	0.067	0.096	nm/K
Temperaturkoeffizient von λ_{peak}, I_F = 20 mA Temperature coefficient of λ_{peak}, I_F = 20 mA	 (typ.) (typ.)	TC_{λ}	0.14	0.13	0.13	0.13	nm/K
Temperaturkoeffizient von V_F, I_F = 20 mA Temperature coefficient of V_F, I_F = 20 mA	(typ.) (typ.)	TC_V	– 1.95	– 1.78	– 1.67	– 2.51	mV/K

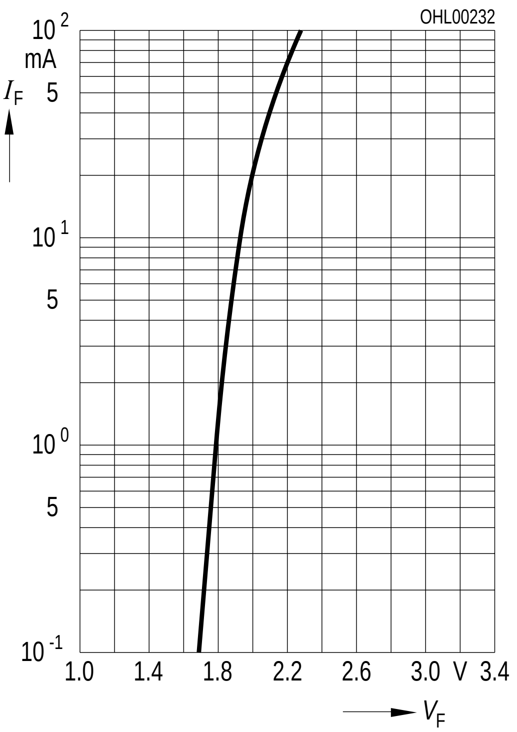
Relative spektrale Emission $I_{rel} = f(\lambda)$, T_A = 25 °C, I_F = 20 mA
Relative spectral emission
V (λ) = spektrale Augenempfindlichkeit
Standard eye response curve



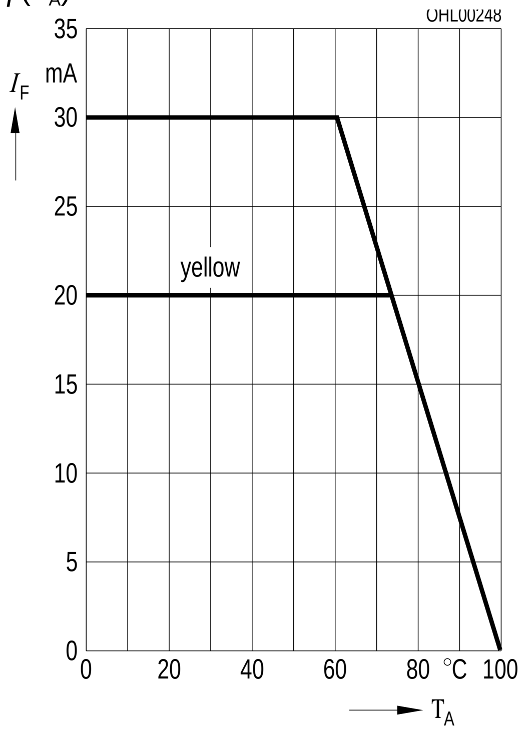
Abstrahlcharakteristik $I_{rel} = f(\varphi)$
Radiation characteristic



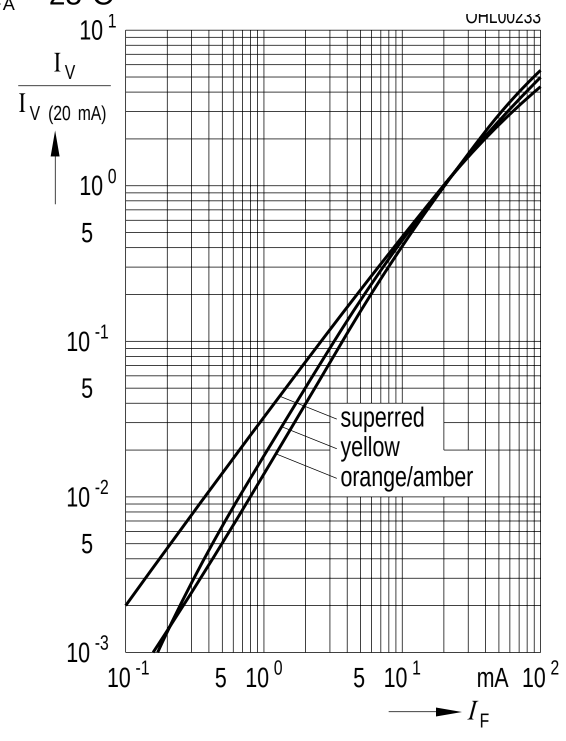
Durchlaßstrom $I_F = f(V_F)$
Forward current
T_A = 25˚C



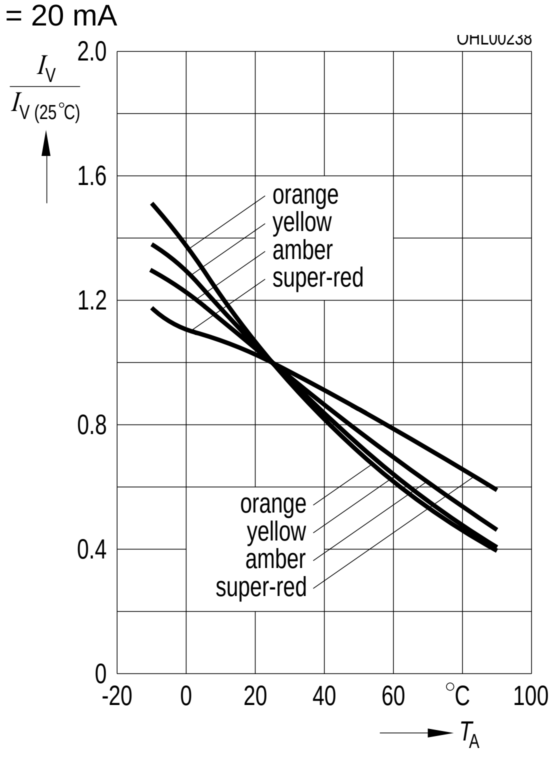
Maximal zulässiger Durchlaßstrom
Max. permissible forward current
$I_F = f(T_A)$



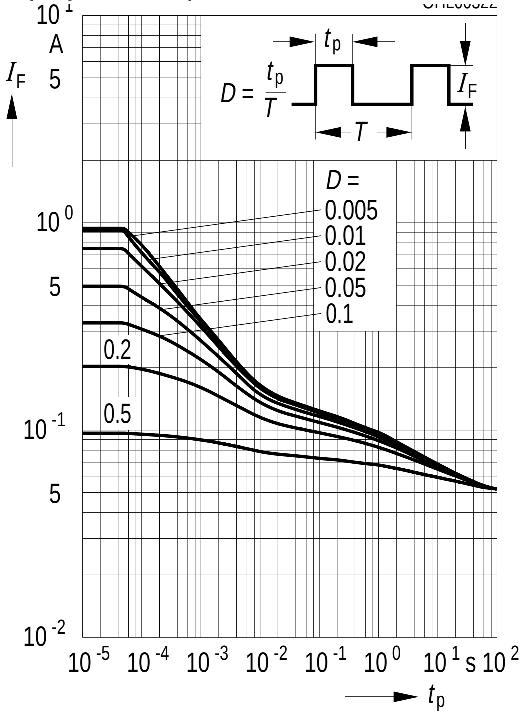
Relative Lichtstärke $I_V/I_{V(20\ mA)} = f(I_F)$
Relative luminous intensity
T_A = 25˚C



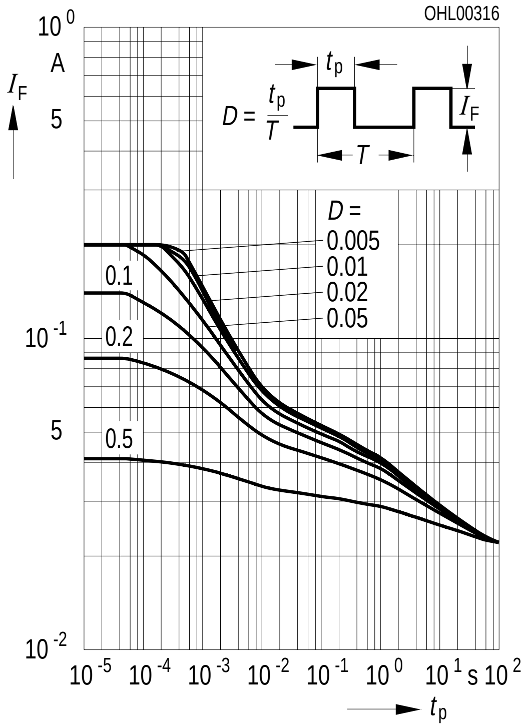
Relative Lichtstärke $I_V / I_{V(25°C)} = f(T_A)$
Relative luminous intensity
I_F = 20 mA



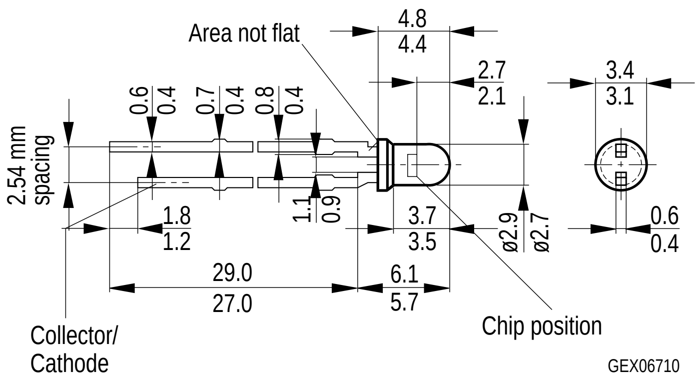
Zulässige Impulsbelastbarkeit $I_F = f(t_p)$
Permissible pulse handling capability
LS, LA, LO
Duty cycle D = parameter, T_A = 25 ˚C



Zulässige Impulsbelastbarkeit $I_F = f(t_p)$
Permissible pulse handling capability
LY
Duty cycle D = parameter, T_A = 25 ˚C



Maßzeichnung (Maße in mm, wenn nicht anders angegeben)
Package Outlines (Dimensions in mm, unless otherwise specified)



Kathodenkennzeichnung: Kürzerer Lötspieß
Cathode mark: Short solder lead